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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shi, et al.

Art Unit: Not Yet Assigned

Serial No.: 10/666,002

Examiner: Not Yet Assigned

Filed: 9/17/03

For: **AN ETCHING METHOD USED IN FABRICATIONS OF MICROSTRUCTURES**

INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 CFR 1.97(b)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-145

Sir:

The attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached PTO Form 1449. Copies of the cited references are enclosed.

No fee or certification is required in connection with this Information Disclosure Statement, since it is being submitted prior to the last of (1) issuance of a first official action on the merits and (2) expiration of the three month period following filing of the above-captioned application.

The above information is presented so that the Patent and Trademark Office can determine any materiality thereof to the claimed invention. It is respectfully requested that the information be considered during the prosecution of this application and that the cited documents be listed on the front page of any patent issuing from this application.

The Patent Office is authorized to charge our Deposit Account No. 501516 for any fee which it deems to be required to effect consideration of this statement.

Respectfully submitted,



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PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

of

6

Complete if Known

Application Number	10/666,002
Filing Date	9/17/03
First Named Inventor	Shi
Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned
Attorney Docket Number	P120-US

U.S. PATENT DOCUMENTS					
Examiner Initials [*]	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
		US- 3,511,727	05-12-1970	Hays, R.G.	
		US- 4,190,488	02-26-1980	Winters, H.F.	
		US- 4,310,380	12-12-1982	Flamm et al.	
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		US- 6,355,181 B1	03-12-2002	McQuarrie, A.D.	
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		US- 5,439,553	08-08-1995	Grant et al.	
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		US- 2002/0196524 A1	12-26-2002	Huibers, et al.	
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FOREIGN PATENT DOCUMENTS					
Examiner Initials [*]	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ -Number ⁴ - Kind Code ⁵ (if known)			
		EP-0704884-A2	04-03-1996	Mehta, J.	
		EP-0822582-A2	02-04-1998	Bhardwai, J.K.	
		EP-0822584-A2	04-04-1998	Bhardwai, J.K.	
		WO-99/49506	09-30-1999	McQuarrie, A.D.	
		EP-0878824-A2	11-18-1998	McQuarrie et al.	
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		JP-1982/57098679-A	06-18-1982	Tsunetoshi, A.	
		JP-1983/58130529-A	08-04-1983	Yoshihiro et al.	
		JP-1985/60057938-A	04-03-1985	Katsumi et al.	
		WO-98/32163	07-23-1998	Tai et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/666,002
Sheet	2	of	6	Filing Date	9/17/03
				First Named Inventor	Shi
				Art Unit	Not Yet Assigned
				Examiner Name	Not Yet Assigned
				Attorney Docket Number	P120-US

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		US- 6,409,876 B1	06-25-2002	McQuarrie, et al.	
		US- 6,396,619 B1	05-28-2002	Huibers, et al.	
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		US- 2004/0035821	2/26/04	Doan, et al.	
		US-			

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		JP-1997/09251981-A	09-22-1997	Kazuaki et al.	
		JP-1998/10313128-A	11-24-1998	Hannin et al.	
		JP-1998/10317169-A	12-02-1998	McQuarrie et al.	
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		JP-1986/61270830-A	12-01-1986	Toru, T.	
		JP-1987/62071217-A	04-01-1987	Toru et al.	
		JP-1988/63155713-A	06-28-1988	Tadashi, F.	
		JP-1986/61053732-A	03-17-1986	Arata et al.	
		JP-1986/61134019-A	06-21-1986	Shinji et al.	
		JP-1986/61181131-A	08-13-1986	Shinji et al.	

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				Filing Date	9/17/03
				First Named Inventor	Shi
				Art Unit	Not Yet Assigned
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Sheet	3	of	6	Attorney Docket Number	

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Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 4 of 6

Complete if Known

Application Number	10/666,002
Filing Date	9/17/03
First Named Inventor	Shi
Group Art Unit	Not Yet Assigned
Examiner Name	Not Yet Assigned

Attorney Docket Number P120-US

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		ALIEV et al., "Development of Si(100) Surface Roughness at the Initial Stage of Etching in F2 and XeF2 Gases Ellipsometric Study", Surface Science 442 (1999), pp. 206-214.	
		GLIDEMEISTER, J.M., "Xenon Difluoride Etching System" (Nov. 17, 1997).	
		HABUKA et al., "Dominant Overall Chemical Reaction in a Chlorine Trifluoride-Silicon-Nitrogen System at Atmospheric Pressure", Japan Journal of Applied Physics Vol. 38 (1999), pp. 6466-6469.	
		HECHT et al., "A Novel X-ray Photoelectron Spectroscopy Study of the Al/SiO ₂ Interface", J. Appl. Phys. Vol. 57 (June 15, 1985), pp. 5256-5261.	
		HOULE, F.A., "Dynamics of SiF ₄ Desorption During Etching of Silicon by XeF ₂ ", IBM Almaden Research Center (April 15, 1987), pp. 1866-1872.	
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		IBBOTSON et al., "Plasmaless Dry Etching of Silicon with Fluorine-containing Compounds", J. Appl. Phys. Vol. 56 No. 10 (Nov. 1984), pp. 2939-2942.	
		IBBOTSON et al., "Comparison of XeF ₂ and F-atom Reactions with Si and SiO ₂ ", Applied Physics Letter, Vol. 44, 1129 (1984).	
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		VUGTS et al., "Si/XeF ₂ Etching: Temperature Dependence", J. Vac. Sci. Technol. A 14(5) (Sep/Oct 1996), pp. 2766-2774.	
		WINTERS, H.F., "Etch Products from the Reaction of XeF ₂ with SiO ₂ , SiO ₃ , Si ₃ N ₄ , SiC, and Si in the Presence of Ion Bombardment", J. Vac. Sci. Technol. B 1(4) (Oct/Dec 1983), pp. 927-931.	

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				Examiner Name	Not Yet Assianed
(use as many sheets as necessary)				Attorney Docket Number P120-US	
Sheet	5	of	6		

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